Application Number: 10/535,076

Listing of Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Claims 1-15 (Canceled)

- 16. (Presently Amended) A method of reducing the number of nucleation mode particles in the emissions from a diesel engine fitted with a <u>catalyzed</u> particular trap which is a continuously regenerating trap (CRTTM) comprising both an oxidation catalyzed and a particulate trap, which method comprises using an engine lubricating oil having a low sulphur content of less than 0.4% by weight in combination with a fuel having a low sulphur content of below 50 ppm by weight to reduce the emissions of nucleation mode particles from the diesel engine fitted with a particular trap.
 - 17. (Canceled)
 - 18. (Canceled)
- 19. (Presently Amended) A method according to claim 18, 16, wherein the diesel engine is a heavy duty diesel engine.
- 20. (Presently Amended) A method according to claim 4 16, wherein the diesel engine is heavy duty diesel engine.
- 21. (Presently Amended) A method according to claim 4 16, wherein nucleation mode particles have a diameter of 30 nm or less.
 - 22. (Canceled)
 - 23. (Canceled)
 - 24. (Canceled)

- 25. (Original) A method according to claim 21, wherein the sulphur content (by weight) of the fuel is below 20ppm.
- 26. (Original) A method according to claim 21, wherein the sulphur content (by weight) of the fuel is 10ppm or lower.
- 27. (Original) A method according to claim 26, wherein the lube oil has a sulphur content (by weight) of less than 015%.
- 28. (Presently Amended) A method according to claim 27, wherein the lubricating oil comprises one or more anti-wear additives which might be used, at least in part, to replace ZDDP, selected from the group consisting of (a) molybdenum containing compounds, such as molybdenum dithiophosphate (MoDTC), molybdenum dithiophosphate and molybdenum amines, (b) organic based friction modifiers, such as oleamides, acids, amines, alcohols, phosphate esters and glycerol monooleates and (c) salicylate-type detergents such as calcium salicylate and magnesium salicylate.
- 29. (Presently Amended) A method according to claim 27, wherein the lubricating oil comprises one or more anti-oxidant additives which might be used, at least in part, to replace ZDDP, selected from the group consisting of aromatic amines of and phenolic compounds—such as hindered phenolics.
- 30. (Presently Amended) A method according to claim 27, wherein the lubricating oil comprises one or more corrosion inhibitor additives which might be used, at least in part, to replace ZDDP, selected from the non-sulphur detergent additivies.
- 31. (Original) A method according to claim 27, wherein the lubricating oil comprises one or more other additives selected from one or more of anti-foam additives, Viscosity Index improvers and dispersants.

- 32. (Original) A method according to claim 21, wherein the low sulphur lube oil has sulphur content (by weight) of less than 0.4%.
- 33. (Original) A method according to claim 21, wherein the low sulphur lube oil has a sulphur content (by weight) of less than 0.3%.
- 34. (Original) A method according to claim 21, wherein the lube oil has a sulphur content (by weight) of less than 0.2%.
- 35. (Original) A method according to claim 21, wherein the lube oil has a sulphur content (by weight) of less than 0.15%.
- 36. (Presently Amended) A method according to claim 21, wherein the lubricating oil comprises one or more anti-wear additives which might be used, at least in part, to replace ZDDP, selected from the group consisting of (a) molybdenum containing compounds, such as molybdenum dithiophosphate (MoDTC), molybdenum dithiophosphate and molybdenum amines, (b) organic based friction modifiers, such as oleamides, acids, amines, alcohols, phosphate esters and glycerol monooleates and (c) salicylate-type detergents such as calcium salicylate and magnesium salicylate.
- 37. (Presently Amended) A method according to claim 21, wherein the lubricating oil comprises one or more anti-oxidant additives which might be used, at least in part, to replace ZDDP, selected from the group consisting of aromatic amines or and phenolic compounds such as hindered phenolics.
- 38. (Presently Amended) A method according to claim 21, wherein the lubricating oil comprises one or more corrosion inhibitor additives which might be used, at least in part, to replace ZDDP, selected from the non-sulphur detergent additivies.

- 39. (Original) A method according to claim 21, wherein the lubricating oil comprises one or more other additives selected from one or more of anti-foam additives, Visocity Index improvers and dispersants.
- 40. (Original) A method according to claim 16, wherein the nucleation mode particles have a diameter in the range of from 1 nm to 30 nm inclusive.
- 41. (Original) A method according to claim 16, wherein the nucleation mode particles have a diameter in the range of from greater than 3 nm to 30 nm inclusive.
 - 42. (Canceled)
 - 43. (Canceled)
 - 44. (Canceled)
- 45. (Original) A method according to claim 16, wherein the sulphur content (by weight) of the fuel is below 20ppm.
- 46. (Original) A method according to claim 16, wherein the sulphur content (by weight) of the fuel is 10ppm or lower.
- 47. (Original) A method according to claim 46, wherein the lube oil has a sulphur content (by weight) of less than 0.15%.
 - 48. (Canceled)
- 49. (Original) A method according to claim 16, wherein the low sulphur lube oil has a sulphur content (by weight) of less than 0.3%.
- 50. (Original) A method according to claim 16, wherein the lube oil has a sulphur content (by weight) of less than 0.2%.
- 51. (Original) A method according to claim 16, wherein the lube oil has a sulphur content (by weight) of less than 0.15%.

- 52. (Original) A method of according to claim 16, wherein the lubricating oil has a ZDDP content at most 0.8% by weight.
- 53. (Original) A method of according to claim 16, wherein the lubricating oil has a ZDDP contained at most 0.4% by weight.
- 54. (Original) A method of according to claim 16, wherein the lubricating oil is substantially free of ZDDP.
- 55. (Presently Amended) A method according to claim 16, wherein the lubricating oil comprises one or more anti-wear additives which might be used, at least in part, to replace ZDDP, selected from the group consisting of (a) molybdenum containing compounds, such as molybdenum dithiophosphate (MoDTC), molybdenum dithiophosphate and molybdenum amines, (b) organic based friction modifiers, such as oleamides, acids, amines, alcohols, phosphate esters and glycerol monooleates and (c) salicylate-type detergents such as calcium salicylate and magnesium salicylate.
- 56. (Presently Amended) A method according to claim 16, wherein the lubricating oil comprises one or more anti-oxidant additives which might be used, at least in part, to replace ZDDP, selected from the group consisting of aromatic amines or and phenolic compounds such as hindered phenolics.
- 57. (Presently Amended) A method according to claim 16, wherein the lubricating oil comprises one or more corrosion inhibitor additives which might be used, at least in part, to replace ZDDP, selected from the non-sulphur detergent additivies.
- 58. (Original) A method according to claim 16, wherein the lubricating oil comprises one or more other additives selected from one or more of anti-foam additives, Viscosity Index improvers and dispersants.